

Product datasheet for **TA377320S**

Isocitrate dehydrogenase (IDH1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, ICC/IF, IP, WB
Recommended Dilution:	WB, 1:500 - 1:1000 IF/ICC, 1:50 - 1:200 IP, 0.5µg-4µg antibody for 200µg-400µg extracts of whole cells ELISA, Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.
Reactivity:	Human, Mouse, Rat
Modifications:	Unmodified
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Formulation:	Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C. Avoid freeze / thaw cycles.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	47kDa
Gene Name:	isocitrate dehydrogenase (NADP(+)) 1, cytosolic
Database Link:	Entrez Gene 3417 Human O75874



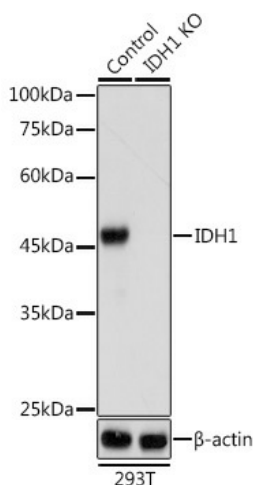
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Background:

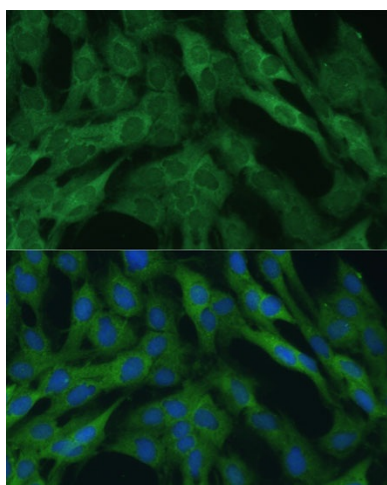
Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent isocitrate dehydrogenases, which localize to the mitochondrial matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which is mitochondrial and the other predominantly cytosolic. Each NADP(+)-dependent isozyme is a homodimer. The protein encoded by this gene is the NADP(+)-dependent isocitrate dehydrogenase found in the cytoplasm and peroxisomes. It contains the PTS-1 peroxisomal targeting signal sequence. The presence of this enzyme in peroxisomes suggests roles in the regeneration of NADPH for intraperoxisomal reductions, such as the conversion of 2, 4-dienoyl-CoAs to 3-enoyl-CoAs, as well as in peroxisomal reactions that consume 2-oxoglutarate, namely the alpha-hydroxylation of phytanic acid. The cytoplasmic enzyme serves a significant role in cytoplasmic NADPH production. Alternatively spliced transcript variants encoding the same protein have been found for this gene.

Synonyms:

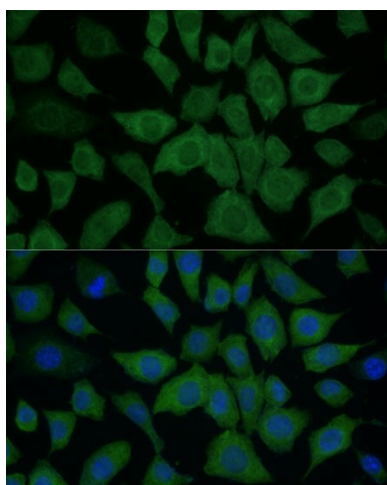
IDCD; IDH; IDP; IDPC; OTTHUMP00000206464; OTTHUMP00000206465; OTTHUMP00000206466; PICD

Product images:


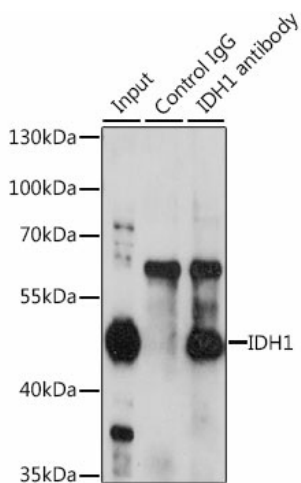
Western blot analysis of lysates from wild type (WT) and IDH1 knockout (KO) 293T cells



Western blot analysis of various lysates using IDH1 Rabbit pAb (TA377320) at 1:3000 dilution. Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) at 1:10000 dilution. Lysates / proteins: 25 µg per lane. Blocking buffer: 3 % nonfat dry milk in TBST. Detection: ECL Basic Kit . Exposure time: 30s.



Immunofluorescence analysis of C6 cells using [KO Validated] IDH1 Rabbit pAb (TA377320) at dilution of 1:100 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of L929 cells using [KO Validated] IDH1 Rabbit pAb (TA377320) at dilution of 1:100 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.